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RATTLESNAKES—CROTALUS HORRIDUS.

[Communicated for the Boston Medical and Surgical Journal.]

THE recent tragic and horrible death of Dr. Wainwright, of New York, from the bite of a rattlesnake, has induced me to send you the following remarks upon the venom of these spiteful reptiles; hoping that from them some useful hints may be gathered in relation to the treatment of the terrific malady caused by this poison. I have not seen the details of the treatment in the case of Dr. Wainwright, and do not know but it was perfectly judicious. Many of the alleged cures of the bite of this venomous reptile, I can readily believe are empirical. I have no doubt that many individuals are bitten by rattlesnakes who would never experience any bad effects from the bite, either from the poison being inert, as appears to be the case in certain seasons, or from its not being absorbed into the system. In these cases the last medicine taken is supposed to have effected the cure, when in fact it was as inefficacious in the case as a draught of cold water. Many of our remedies in other cases come into vogue in this way, while in other similar cases the same remedy is entirely useless. I believe in no panacea or specific, in any case. Whenever the time arrives that we have specifics for diseases, or certain cures for them, then these diseases will be banished from the earth. Still some good may be elicited from what has been said by different writers upon the articles which have been employed by them in the treatment of this most horrible of all human complaints.

Rattlesnakes abound in various parts of our country, particularly in our western and southwestern States. They were formerly found in great abundance in our sandstone and greenstone ranges of mountains in Deerfield and Greenfield; but few are found there now. Occasionally we hear of their being killed upon Mount Toby and the ranges of mountains east of Connecticut river, in this County. The following anecdote in relation to them, which was taken from the archives of the Massachusetts Historical Society, was published in the Franklin Mercury of Dec. 8, 1835, and corroborates the assertion that rattlesnakes were abundant in Deerfield in days of yore. The transaction must have occurred nearly one hundred years ago.

"A Mr. Jonathan Hawks was ploughing not far from the mountain

called Sugar Loaf, that lies near the Ferry leading to Sunderland. He saw a number of turkeys coming into the field; he got his gun in order to kill them, but before he was ready the turkeys made off up towards the mountain, and, as he was advancing up the same, he was surrounded by a number of rattlesnakes; and he being of a heroic spirit, and man-like, loth to turn his back and run, though surrounded by such spiteful and malignant serpents (as those serpents are the most spiteful of any serpents that crawl upon the ground), he set down the gun (as they had none), and took a stick that lay handy, stands his ground and fights them, kills thirty-four of the serpents on the spot; the rest were so frightened at the valor and activity of the man, that they were glad to quit the field of battle and hide themselves in the holes under the rocks, and leave the hero in the possession of the field. He took thirty-three eggs out of those he killed at that time; he destroyed sixty-seven of these serpents."

It was formerly something of an object to kill them for their gall or bile, and for their oil. Rattlesnake balls, as they were called, were prepared with the bile of the reptile, mixed with prepared chalk, and formed into balls. A few grains of this taken in any proper vehicle, such as molasses, syrup, &c., was considered a valuable remedy in colic, and in all cases of acidity of the stomach. The oil of the rattlesnake has been considered by many as one of the most powerful discutients and relaxants in contracted joints and limbs, of any article in the *matéria medica*. I am not absolutely sure that there is not some truth in the remark, having used it somewhat extensively.

The bite of the rattlesnake proves almost immediately fatal in many instances, particularly in that season of the year when they are copulating. The poison then is much more active than at any other season. At other times it remains several days in the system before it produces its deleterious effects. The rattlesnake is harmless when unprovoked, and he is very slow in his motions, so that a person may often escape from him when he is seen. He gives warning of his attack, by coiling himself into a circle, and in the act of coiling he shakes his tail, which contains the rattle, which produces a peculiar sound, never to be mistaken by those who have heard it. He has the faculty of moving the upper jaw, in the centre of which are two hollow, hooked teeth, connected with a bag which contains the poison. When he inflicts his bite, this bag contracts, and the poison is infused into the wound through the hollow teeth. In certain seasons of the year, according to Dr. B. S. Barton, who has written an elaborate history of the *crotalus horridus*, or rattlesnake, these animals are almost torpid; there is but very little poison in them, and their bites may be inflicted with very little injury.

The poison of the rattlesnake exerts its effects principally upon the sanguiferous system. When the poison is infused into a large vein or artery, Dr. Barton observes "that death speedily ensues, often in the space of two or three minutes," as he has been informed from various authentic sources. He continues, "when the poison of the rattlesnake has actually been introduced into the general mass of blood, it begins to exert its most

alarming and characteristic effects. A considerable degree of nausea is a very common symptom. We now discover an evident alteration of the pulse; it becomes full, strong and greatly agitated; the whole body begins to swell; the eyes become so intensely suffused that it is difficult to discover the smallest portion of the adnata, or white of the eye, that is not painted with blood. In many instances there is hemorrhage from the eyes, and likewise from the nose and ears; and so great is the change induced in the mass of blood, that large quantities of it are sometimes thrown out on the surface of the body in the form of sweat. The teeth vacillate in their sockets, whilst the pains and groans of the unhappy sufferer too plainly inform us that the extinction of life is near at hand."

A curious and interesting account of the singular consequences of the bite of a rattlesnake is published in the 17th volume of the *European Medical and Physical Journal*. In the summer of 1801, Mrs. Alfred Beeman, of Luzerne County, Pennsylvania, was bitten by a rattlesnake. She was then in the fourth or fifth month of her pregnancy. Notwithstanding the alarming symptoms commonly attending the bite of the animal, Mrs. Beeman recovered, and was delivered without accident at the usual time. The child seemed healthy, but no sooner did it begin to suck, than it turned quite black, like the snake, swelled considerably, and soon died. A puppy was then produced to draw the breast; the animal died in a few days, with the same symptoms. A lamb was then tried, and then a dog, and three other lambs successively, which all shared the fate of the child. A third dog was then produced; it was attacked with slight symptoms of the disease, but survived. The mother continued in good health. Two years afterwards Mrs. Beeman brought into the world another child. Apprehensive of losing it like the former, she sent for Dr. Barton, who, in consequence of the long interval which had taken place since the bite, and the recovery of the last dog which had sucked her, prevailed upon her to suckle her child, which was attended with no bad consequences whatever.

The remedies for the bite of the rattlesnake have been as numerous as the persons who have used them. In fact, almost every person who has been bitten by the rattlesnake, and almost all who have been called to witness or prescribe for such bite, have had a panacea, and this specific has differed from almost any other; and these specifics have, as they say, been traced back to the Indians, who certainly, in their opinion, knew how to cure all diseases. Carver says the Indians will at any time let a rattlesnake bite them for a drink of rum, which bite they instantly cure with the common plantain (*plantago major*). Perhaps they drink rum enough to obviate the effect of the bite, as I see it recommended in the papers of the day, that spirit is an infallible specific. The negro Cæsar's remedy, for which he obtained his liberation from servitude from the Legislature of North Carolina, was a decoction of plantain or hore hound, the juice of which was squeezed out, and a tablespoonful of it taken occasionally, which effectually freed the patient from danger. He bound upon the wound a leaf of tobacco moistened

with rum. In a paper published in the third volume, part 1, of Barton's Medical and Physical Journal, by Mr. Haynesworth, nine cases of persons bitten by rattlesnakes are recorded, which induced all the symptoms which are usually enumerated as consequences of the bite of this reptile, but which were all restored by a decoction of the plant called *jestis weed*, made by boiling a handful of the entire plant in a quart of new milk down to a pint, and giving the patient a tablespoonful of the decoction every few minutes. Unfortunately the botanical name of the plant is not given; and I have inquired of all the students who have ever attended my lectures, from all parts of the Union, at the medical colleges of New York, Willoughby, Berkshire and Hanover, concerning it, without obtaining any knowledge in relation to it. I have also published, through the medium of your wide-spread Journal, queries to the physicians in the various parts of the Union, concerning the botanical name and properties of it, but have received no communication from any of them. I therefore fear it is entirely lost to the world, from not publishing it under its botanical name.

Mr. Catesby, in his natural history, mentions a fact, which he says is well attested, of an Indian daubing himself with the juice of the purple bind weed, a species of *convolvulus*, and then handling, with his naked hand, a rattlesnake. A decoction of the *viola ovata*, or rattlesnake plantain, or violet, is said to be efficacious in the cure of this bite. (See a paper of mine on the subject of the violets, in the *American Medical Journal*, and in the *New York Journal of Medicine*.) The venerable Dr. Henry Wells, late of Montague, one of the most respectable and learned physicians which Massachusetts has ever seen, successfully employed this violet in these cases. To his statement respecting it I wish to draw the attention of physicians. He was called to a patient who was bitten by a rattlesnake, and who was laboring under the symptoms of a diffusion of the virus. His body was enormously swollen, respiration laborious, and his skin livid. He immediately directed a strong infusion of this plant, and bathed the body and wound constantly with it. In a few hours the tumefaction subsided, the febrile symptoms abated, and the patient was considered out of danger. The doctor went to bed, and left directions with the nurse to give the patient the violet tea often during the night. The patient was so much better in the course of the night that the nurse became negligent, and omitted the directions, and fell asleep. From this suspension of the remedy the patient relapsed, his febrile symptoms returned, his body was swollen like a puff ball, and all his symptoms were aggravated. The doctor was called, and again directed the violet as before. The symptoms yielded, and from a continuance of the remedy two or three days, he was restored, without the use of any other means. Dr. Wells mentioned the above facts to my father, and at the same time showed him the plant, which my father perfectly recollected when I collected it for preservation in my herbarium. This plant must not be confounded with the *hieracium venosum*, veiny-leaved hawkweed, sometimes called rattlesnake plantain, though the latter is strongly recommended by



Rafinesque and others, in the bite of the rattlesnake. Capt. Carver mentions salt as a remedy. The Indians of New Jersey give garden rue. The negroes give aristolochia; they likewise use a kind of grass called chicken grass, mixed with salt and spirit, as a poultice.

The use of *olive oil* may be strongly recommended in the bite of the rattlesnake. My grandfather, Dr. Thomas Williams, formerly a very distinguished physician in this town, once restored a patient bitten by a rattlesnake, apparently in the last stage of life, by the external and internal administration of olive oil. He also used successfully the *viola ovata* in these cases. Mr. J. Miller, of Pendleton, South Carolina, observes that olive oil, taken internally in the quantity of a few spoonfuls, and applied to the bitten part, has proved itself fully adequate to the worst cases, if timely administered. An intelligent writer in the *Augusta Constitutionalist* of 1833, speaks in the highest terms of his personal success with the olive oil in cases of the bite of the rattlesnake. Several successful cases are related. The inhabitants of Pendleton are in the habit of using it in all cases, where cattle, dogs, &c., have been bitten by this reptile. He says, "I can hardly excuse myself of criminal neglect in having so long omitted to make thus public this sovereign remedy for the worst of poisons." In the memoir of Dr. Thacher, in my *Medical Biography*, I have mentioned his treatment in the case of the bite of a rattlesnake. Near Skenesboro', in 1776, "a soldier had the imprudence to seize a rattlesnake by the tail; the reptile threw his head back and struck his fangs into the man's hand. In a few moments a swelling commenced, attended with severe pain. It was not more than half an hour when his whole arm to his shoulder was swollen to twice its natural size, and the skin became of a dark orange color. His body on one side soon became affected in a similar manner, and nausea at his stomach ensued. The poor man was greatly and justly alarmed; his situation was very critical. Two medical men besides myself were in close attendance for several hours. Having procured a quantity of olive oil, we directed the patient to swallow it in large and repeated doses, till he had taken one quart, and at the same time we rubbed into the affected limb a very large quantity of mercurial ointment. In about two hours we had the satisfaction to perceive the favorable effect of the remedies. The alarming symptoms abated, the swelling and pain gradually subsided, and in about forty-eight hours he was happily restored to health!" The testimony in favor of the olive oil is so weighty in these cases, that it may be strongly recommended.

Dr. Bricknell, of Savannah, has found that the virus of the rattlesnake is an *acid*, and says that the appropriate remedies are alkalies. The East Indian physicians use alkalies for the bite of snakes. The Abbe Fontaine, who tried above six thousand experiments with the poison of the viper, has clearly demonstrated that nitrate of silver, or lunar caustic, with him was the appropriate remedy.

I hope, among all the remedies enumerated, some of them may prove successful in these awfully terrific cases.

Deerfield, Ms., Dec. 20th, 1847.      STEPHEN W. WILLIAMS, M.D.

## TYPHUS FEVER IN 1847.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—The treatment of typhus fever has been and is growing a more interesting topic among physicians ; and the abundant room for improvement in the treatment, ought to excite to action every energy of intellect with which physicians are endowed for its advancement, it being the common " scourge " to every location of hill or valley in New England, without regard to age, sex, or any other condition. The amount of suffering which it causes is nearly equal to the congregated suffering caused by all other epidemics prevalent among us. If physicians would report their method of treatment, and their success under any particular mode, they would assist greatly in illuminating those of less experience and not fully established in their own minds, as well as edifying all. You have been so condescending as to publish, in your Journal, some of my former sketches on the subject, and I thought, if my experience of late would shed one ray of light or communicate one valuable idea to the young practitioner, it would afford me gratification to relate it.

I have been recently called to visit about forty patients suffering under typhus fever. My course of treatment has not varied much in its general application, but I have paid particular attention to the variations from the common course of the disorder, and endeavored to apply a remedy to the organ most prominently affected. I have found, when the head has been the organ primarily and violently seized (which has generally been the case, and sometimes with such severity as to produce delirium for a week or more), that blistering the arms nigh to the shoulders has afforded immediate relief, and has been preferable to my old custom of blistering the scalp. I have also made applications of cold alcohol and water, vinegar and water, and pure cold water, to correspond to the patient's peculiarity of constitution or preferences, to the part affected.

I hardly know an instance where this treatment has not afforded results which were equal to my expectations. I have seldom drawn blood, and never except in cases of strong plethoric constitutions, attended with local pain, violent heat, and strong, full pulse. I have commenced generally by administering an emetic of ipecac. or wine of antimony when there is nausea, and if not, cal. with jalap or gamb. to robust bilious males, but in common cases either salts and senna, oil or rhubarb, as may be best adapted to the patient's peculiar circumstances. After a suitable course of evacuations at the commencement of the attack, I give nitrate potass. in small doses, from two or three to ten or twelve grains once in four or six hours, according to the degree of heat which pervades the system, and wine of antimony combined with camphorated tinct. of opium in doses adapted to the patient's age and strength, to operate as a sudorific, as often ; and continue this course in diminished doses as the fever abates, as long as the unnatural heat continues. I sometimes substitute the nitrous ether for the nitrate of potass.

where it agrees better with the patient. Sinapisms to the feet for pain in the head, and to the seat of local pains in other places, have proved useful. For forty years past I have been led to reject, from time to time, every variety of stimulus in any stage of typhus, which has the least tendency to produce an excited pulse or induce heat. I have found Dover's powders one of the best anodynes and sudorifics, and most congenial to my patients, at night, for general application. I have seldom given cathartics after the first evacuations, except for costiveness. A continued warm perspiration, even to profusion, has proved favorable, and I believe the pores of the skin to be the most natural outlets of the virus which constitutes fever. The present season, as heretofore, many of my patients, at the third week, have called for fermenting or sweet cider, which has relished exquisitely and apparently with benefit. One of the most trying incidents for the physician and patient is to control the inordinate hunger which takes place in convalescence, owing to the patient's inability to control his desire, through impaired mental energy consequent upon physical debility.

To some physicians there will seem an apparent want of energy in my practice; but in reply I can say, that forty or more of my last patients who have gone through a course of typhus fever, have all recovered under this "inert" course of treatment, in from three to six weeks; some of them restored to better health than they had previously enjoyed. I am not in the habit of boasting of my exploits, but can say that a good Providence has preserved the lives of my patients, and I can boast of not having killed any of them; and I am fully persuaded that one of the great secrets of curing patients is not to kill them.

I should like to be informed whether there is not danger in giving inwardly, in any quantity, strychnia, creosote, prussic acid, nitrate of silver, and a host of other virulent caustic poisons; and whether some of them would not have a tendency to cauterize or constrict the delicate absorbents and other vessels of the digestive organs; and whether such medicines have congeniality or affinity enough with the membranous and vascular portions with which they come in contact, to become sanative medical agents; or whether they would not have a tendency to produce obstructions and those ulcers which we meet with in *post-mortem* examinations, in those subjects who die of typhus fever. An answer in your Journal by some medical friend would be acceptable.

With much respect, your ob't serv't,  
SILAS BROWN.  
Wilmington, Mass., Dec. 20, 1847.

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#### NOTES FOR A MEMOIR ON THE PATHOLOGY OF THE TEETH.—NO. VI.

By A. C. Castle, M.D., Surgeon Dentist, N. York.

[Communicated for the Boston Medical and Surgical Journal.]

IN the two last classes of teeth the deposition of *salivary calculus* is at times in very great quantities. The collection of "tartar" has, in com-

mon with the teeth, of late years, received a large share of practical attention, but not to that extent which it demands. It has indeed been the subject of many theories, some quite humorous and others deserving respect. Some have supposed it to be exhaled from the substance of the gums, others think that it is built up by animalcula, similar to "coral reefs," and numerous members of the dental profession ascribe it to the absence of "cleanliness."

*Salivary calculus*, I opine, occupies, or rather its elements occupy, a more important position and influence upon the system, than, from its apparent insignificance, has been supposed. Robert Arthur, Esq., Doctor of Dental Surgery, in his excellent "Treatise on the Teeth," confirms the physiological view which I have taken upon this subject.

It is computed that from twenty-four to twenty-eight pounds of saliva in *quantity* is secreted every twenty-four hours. Its elements or constituent principles in health constitute mucilage, albumen, phosphate and oxalate of lime, and phosphate of ammonia and magnesia. In disease the saliva is acidified, especially in apthous children, or when suffering from gastric affections.

Enderlin's researches yield the following results in regard to the constituents of the saliva, and which forms the basis of *salivary calculus*.

The constituents soluble in Water.		Ashes of Human Blood (Berzelius).	
Tribasic phosphate soda (3 Na O, P O <sub>5</sub> ).	28.122	Tribasic phosphate soda, - - -	22.1
Chlorides of sodium and potassium, -	5. 61.930	Chloride sodium, - - - - -	54.769
Sulphate of soda, - - - - -	2.315	" potassium, - - - - -	4.416
<i>Constituents insoluble in Water.</i>		Sulphate soda, - - - - -	2.461
Phosphate of lime, - - - - -		Phosphate of lime, - - - - -	3.636
" " magnesia, - - - - -		" " magnesia, - - - - -	0.769
" " peroxide of iron, - - -	5.509	Oxide of iron, with phosphate of iron,	10.77
Loss, - - - - -	2.124		

"*Forces of Adults*" (Berzelius).

Chloride sodium and alkaline sulphates, -	1.367	} 4.000 soluble salts.
Tribasic phosphate of soda, - - - - -	2.633	
Phosphate of lime and magnesia, - - -	80.373	} 94.933 insoluble salts.
Sulphate of lime, - - - - -	4.530	
Phosphate of peroxide of iron, - - -	2.090	
Silica, - - - - -	7.940	

"*Pulmonary Mucus*" (Nasse).

Water, - - - - -	935.320	Sulphate soda, - - - - -	0.400
Solid residue, - - - - -	44.480	Carbonate soda, - - - - -	0.198
Mucin, - - - - -	22.750	Phosphate soda, - - - - -	0.080
Albumen, - - - - -	1.004	Phosphate potash, - - - - -	} 0.974
Water extract, - - - - -	3.006	with traces of iron, - - - - -	
Alcohol extract, - - - - -	1.810	Carbonate potash, - - - - -	0.291
Fat, - - - - -	2.387	Silica and sulphate - - - - -	} 0.555
Chloride sodium, - - - - -	5.825	of potash, - - - - -	

From the analysis of the saliva *Enderlin* conceives that saliva enters largely into the chemistry of digestion and in the formation of the blood. In its normal state saliva is alkaline and gives off ammonia, but the secretion of the mucus of the mouth is acid. The evaporation of a drop of saliva gives rise to a beautiful crystalline arrangement, similar in form to hydrochlorate of ammonia.

I look upon *salivary calculus*, in all respects, as being analogous to *urinary calculus*. It partakes of all the physical appearances, consistence,

mottled strata, hardness, softness, friableness, &c. &c., presented in the various calculi of the urinary organs. It is generally deposited upon those teeth of imperfect combinations of their constituents, and rarely, if ever, upon those teeth (if we except during sickness, or a *sediment*, as it were, upon the inside of the teeth after "indisposition") perfectly organized and belonging to a sound, healthy constitution. When it is present in such cases, a semicircular line of calculus is discovered immediately under the edges of gums, encircling the neck of the teeth; in form it is like an inverted crescent upon the edge of the enamel, where it blends with the external lamina of the bone of the tooth. It is a very dense and exceedingly hard concretion, requiring considerable force to remove it from the teeth, and fractures with a sharp clicking sound. I conceive this species of "tartar" to be more destructive to the alveoli than any other. It gradually insinuates itself down the fang of the tooth, and in many cases I have seen that it has destroyed or rather severed the nerve at its entrance to the foramen of the tooth at the apex of the fang, which it has entirely closed, and of course has destroyed the aperture through which the vital membrane passed into the dental chamber. The dento-alveolar periosteum being pushed away and destroyed, carrying by absorption the alveoli with it, the teeth, in a perfectly sound state, fall from their positions. So hard is this concretion upon the fangs as to require the removal of a portion of the surface of the bone to relieve it from its embrace. Microscopic examination discovers that this calculus exists in a crystalline state, and by its irritating effects frequently causes what is supposed to be neuralgic pains.

The next form of salivary calculus, is of a soft, friable, pulverant nature. It is of two kinds, the simple *phosphate of lime* and the *ammonio-magnesia phosphate of lime*, with the usual combinations of animal matter; and I have no doubt that *oxalate of lime* upon investigation will be found to exist in large quantities.

We find it deposited on the teeth, and not upon the flesh, but upon such substances as answer the analogous purpose of the nuclei in the bladder for the deposition of calculus upon them. Salivary calculus is found deposited on artificial bone or porcelain teeth, on the silver or gold plates, and also on the dead fangs of teeth; but the absorbing process prevents its deposition on exposed alveoli. It sometimes is found in the *Whartonian duct* in one form of *ranula*. Salivary calculus has been extirpated from this duct as large as a hazel nut, and a hog's bristle in the case of a shoemaker, presented to the Anatomical Society in Paris, by M. Robert, exhibited the nucleus for the formation of the calculus attached to or embracing it.

It is generally deposited, as I have heretofore mentioned, upon those teeth of imperfect combinations of their constituents, and rarely, if ever, if we except a sediment thrown down consequent upon the abnormal secretions, super-induced by ordinary "indisposition," or in larger collections in the confirmed diseased. Disease, as particularly perceived in *phthisis pulmonalis*, increasing the exhalation of acid and alkaline matter, their combination precipitates and forms these concretions or corroding

acidified matter upon the teeth according to the one in *excess*, and which is not to be seen upon teeth of a healthy constitution and habits, while the healthy secretions are preserved. It collects in great quantities in strumous and rickety children, and from the readiness of the saliva to become putrid, we find the acidified matter eating into and destroying the teeth. In aphthous and teething children, this is a great cause of local and constitutional irritation, and I have no doubt that it is one cause of the bronchial irritation and sympathetic cough superinduced by the immense quantity of glairy mucus exhaled from the bronchial cells consequent upon a sub-inflammatory action, from a metastasis of action, as we daily observe in extensive superficial *burns*. In mothers of strumous diathesis, whilst nursing, tartar accumulates in large quantities, or canker sores afflict the mouth, and a filthy, acrid, corroding, green acidified matter, occupies the place of the tartar, which "eats" into the enamel and bone of the teeth, often rendering them so exquisitely painful as to be almost useless.

In the increased secretion of saliva in teething children, who shall say that the "dribblings," by which it is generally known, and which are considered by the nurse as a good "sign," do not discharge an important office in conveying to the absorbents and secretive powers the quota of lime so necessary to the formation of the teeth? The substance of the buccal mucous membrane, developing, as it does, the large and numerous openings into its substance, its close contact, and identifying itself so intimately with the *alveolo-dental periosteum*, which originally formed the sacs containing the germs of the teeth, the absorption, then, of the lime I think may be accounted for, and the absence of salivary calculus, upon the teeth of healthy children, and its presence upon those whose secretive powers are injured by trashy, indigestive *unnecessaries* with which maternal fondness! *cram* their progeny—thus irritating and destroying the healthy activity of the lymphatic system. Daily may be seen, upon the dissecting table, infantile, and other subjects, which had been of strumous diathesis, with limy concretions in the substance of the lungs, the liver, and in two instances, I have seen in the spleen, and in the bladders, which no doubt are here deposited, in the hurry, as it were, of the system, or the *vis vita* and *vis medicatrix natura*, exerting their influences to get rid of the superabundance of lime, now refused, although necessary to the several disordered systems of the animal economy; or the surcharged particles, not being able through their proper organs, to make their healthy required deposits, seek an exit by other channels, and, as I have shown, enter into chemical combinations and depositions. In adults where the teeth are deficient in lime, this peculiar characteristic presents itself. The absorbents of the gums and teeth are more active, as if they were endeavoring to take up the lime deposited upon them. In old age, salivary calculus is deposited in immense quantities, the animal economy no longer requiring the usual supply of lime. Hence, "gravel" complaints, stone in the bladder, loss of hair, dry pinched nails, ossification of the heart and arteries, depositions in the joints and partial ossification of portions of the ligaments,

and the irritations of all the large excretory and vital exhalant organs, are as much consequent upon this exciting cause as the pouring out of surcharged bile will cause biliary "complaints," and as other organs being either surcharged or deficient in their secretions and excretions, have *their* several influences upon the general system. That the lime is necessary to the animal economy, does not require my aid to establish. That its continuous supply is necessary to the formation, continuation and permanency of the bones, and the other portions of the "system," falls under our daily observation. I have had opportunities of observing many illustrations of this, and I may here speak of the happy effects in the exhibition of lime (aqua calcis) in *gun-shot wounds*, at least so in the latitude of *Monte Video* and *Buenos Ayres*. The most amusing illustration of the want of lime and the effects of its presence came under my notice on my voyage from South America to "sunny France." We had omitted to procure gravel for the poultry, and in a few days after we were "at sea" the poultry began to droop, and wound up their affliction with the "pip," or, as the sailors termed it, the "scurvy." Their feathers fell from their bodies, and it was perfectly ludicrous to see the numerous *unfeathery* tribe, in the most profound misery, moping away their time, in an utter state of nudity. Amusing myself one day by fishing up "gulph weed," which floated in immense "fields" upon the surface of the ocean, I shook from it numerous small crabs, about the size of a pea. The poultry, with one accord, roused themselves from their torpor, and seemingly, as if by instinct aware of the therapeutic qualities of these interesting animals, they partook of them with greater avidity than any invalid ever swallowed the "waters" at the "springs." After a few hours the excellence of the remedy was apparent; the "roosters" began to crow, the hens to strut and look saucy, and in a few days they all appeared in quite a holiday suit of feathers, derived from the lime, the constituent part of the crab shells. In regard to the density of the teeth, it may be summed up in the comparison, that as the feather of the chick is to the feather of the fowl (a sort of dentition with them), so are the deciduous to that of the permanent teeth.

*New York, December 23d, 1847.*

#### THE LATEST "DISCOVERY."

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Among the "discoveries" of modern times we have one made by a physician in New York, which in point of importance and novelty should "rank the inventor with the illustrious Jenner," and should prompt the profession to a monumental commemoration.

The "discovery" consists in the following new method of "cauterizing the throat and air passages," according to the following recipe, viz. :—

Take a whalebone eighteen inches long, having the end bent over a circle whose diameter is four inches. To this bent extremity fasten a



piece of sponge of the size of a "piece of chalk," and well moistened with a solution of the nitrate of silver, one drachm or less to the ounce. After seating the patient, and directing him or her to "gape with wonder and amaze," hold the whalebone with its armed sponge within two feet of the patient's nose. Then attach to the straight end of the instrument a splendid *agate* handle about six inches long, and screw upon its extremity a magnificent *gold* head. The instrument is now ready for use, and if the patient is green enough, it may be thrust down his or her throat, and the doctor's hand may then be thrust in like manner deep into his or her pocket in pursuit of a fee, large enough to pay for so splendidiferous an instrument.

This same savan is said to "attempt the cure of tuberculous consumption" in this scientific way, following this cauterizing with the excision of the tonsils, or a slice of their "follicular cells," whenever, on looking down the throat, he can "see the enemy."

It will not do to laugh at the novelty of this "discovery," for a puff has been procured for it in England! and "gold medals" from the Emperor of "Nova Zembla and the Lord knows where," are expected by the next packet. Indeed the exhibition of the slices cut from the palate and tonsils, of the crowds thronging the doctor's office, which are said to be pierced with a needle and strung upon a thread like so many peach kernels; and which are duly labelled with the names and *titles* of the unlucky wights, male and female, whose throats have been swabbed and cut after this fashion, furnishes a museum to gull the ignorant and unwary. So that it is said the fees yielded by this "discovery" are large and numerous enough to warrant any expenditures in the way of advertisements under the cover of laudatory paragraphs in the newspapers, and to procure *quantum sufficit* of criticism in his favor, and abuse of any who presume to question the "originality of his discovery," or to rebuke his empiricism and effrontery. They are done *anonymously*, though with great pomp and circumstance, thus avoiding all responsibility. Their authorship, though surmised by the profession, is concealed by artful means from the necessary proof, and the fictitious signature is a mask which protects the party employed in this work, from exposure and castigation.

Under such a state of facts, it is not marvellous that replies and rejoinders should be anonymous, as they ought to be, until some responsible writer will append his name.

Yours, &c. JUSTUS, JR.

#### CHOMEL'S ELEMENTS OF GENERAL PATHOLOGY.\*

[THE following notice, from a friend in a neighboring city, of a new work alluded to in the Journal of week before last, has been received, and is given as a second notice of a book which well deserves this additional attention.]

\* Elements of General Pathology, by A. F. Chomel; translated from the French by F. E. Oliver and W. W. Morland. pp. 458. Wm. D. Ticknor & Co., Boston.

We hail with genuine pleasure the appearance, in a beautiful English dress, of this truly classical and admired work of the justly celebrated French teacher. Chomel is most eminently a practical writer. He deals with facts; and though his arrangement of these is worthy of all praise for its clearness and vigorous exactitude, he avoids systems, and thus it is, that the faithful student is enabled to generalize as much from the observations of this great master, as if the facts enumerated passed before his own eyes. The numerical method, in its main features, was early adopted by Chomel; and although he yields to Louis in the fervency with which he appeals to medical statistics, and in the truthful application of the numerical method to the study of pathology, he may be regarded as the pioneer of that method, and the authority for which M. Louis had the profoundest reverence.

What can be more instructive than the author's description and estimate of symptoms. How they clear the mind of the student and practitioner from the clouds and doubts engendered by the appreciation of the manuals and works of reference which he consults. No better answer to the medical vagaries and reputed new systems of the present day, need be given than the author's remarks on the rules of experiment in medicine, and especially in therapeutics. The most credulous mind in following his remarks is sure to be deterred from hasty conclusions. And then the diagnosis of disease unfolds itself with a perspicuity and brevity that divests the subject of the dryness and tediousness that almost frighten a student in some of the best English authorities.

The translation is executed with idiomatic exactness, and though literal is as fluent and unrestrained as an original work. It is the author speaking his own thoughts in the English language. The translators, Drs. Oliver and Morland, have divided the work very exactly between them, and have fixed the initial of their name to each portion of their respective labors. While their few short notes are valuable and apposite, they have judiciously abstained from crowding the text, as is too frequently the case in translations, with unimportant and meagre additions, which serve only to display the conceitedness of editors and translators, while they unnecessarily enhance the price of the work.

As an elementary work it is just what is needed by the medical student. Before entering upon the special pathology of the dissecting room, or the autopsies of private practice, he needs to be told the character of the facts which come before him. Before yielding his mind to the deductions of clinical observations, he needs to acquire a just appreciation of the value of symptoms and of therapeutical agents.

As a work of reference to the young, and indeed to every practitioner, it has a value that is contained in no other volume in the range of our reading. It is prefixed by a full and exact table of contents, and has, at the end of the volume, a still more generous index for convenient reference. Some idea may be formed of the comprehensiveness of the work by quoting a single sentence from the author's preface. "The definition of disease in general, and the mode of defining each one in

particular ; the nomenclature, seat, causes, and precursory phenomena of diseases ; their symptoms, progress, duration, and varied terminations ; convalescence, consecutive phenomena, relapse and recurrence ; the distinction of genus, of species, and of pathological varieties ; complication, diagnosis, prognosis, anatomical changes and treatment ; the intimate nature of diseases, their classification, and the examination of the principal works upon general pathology, are each the subject of a special chapter." The work is got up in a single octavo volume, in the handsomest style of Ticknor and Co., at a price which brings it within the means of all. And we hope those, especially, who need a rudimental work on the important topics comprehended in this digest, will hasten to provide themselves with a copy. It should have a place in every student's library, however limited.

P.

*December 20th, 1847.*

#### HEMIPLEGIA REMOVED BY ELECTRO-MAGNETISM.

[Communicated for the Boston Medical and Surgical Journal.]

A GENTLEMAN in a neighboring town was taken with partial paralysis of the left side of the body. The left arm and leg, with the foot, were considerably affected. Slight shocks or twitches were felt almost every day. He was a laborer in a boot manufactory, and had spent seventeen hours of the twenty-four in his employment. He had lived rather sparingly, and become considerably enfeebled. He had been treated by several physicians for four or five months before he came to me ; first upon a depleting plan, and then upon a stimulating one. But the difficulty was not removed by either. I advised him to try galvanic electricity. He did so, and followed it every other day for six weeks. His paralytic affection immediately began to disappear, and at the end of the six weeks, he had been entirely free from it for two weeks. Several weeks have since passed, and he has felt nothing of it since. He used the *current* passed in various directions through the extremities, the head and the trunk. The application was made every other day for about fifteen minutes each time. It is his impression that he would have recovered immediately if he had tried this remedy at the first ; but of this I am doubtful. I have generally found it succeed better in those cases which have lasted for several weeks under the use of other remedies, than when applied to very recent affections. Why it is so, I am unable to say, but such has been my experience in several cases where the remedy has been tried. That it has been essentially serviceable in this case, and in several others of considerable standing, which have come under the care of the writer, he cannot doubt.

*Boston, Dec. 25, 1847.*

W. M. CORNELL.

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 THE BOSTON MEDICAL AND SURGICAL JOURNAL.
 

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 BOSTON, JANUARY 5, 1848.
 

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*New Anæsthetic Agent.*—Dr. J. Y. Simpson, of Edinburgh, will please accept our thanks for the favor of his pamphlet. His discovery is making a sensation, and the success of the chloroform, thus far, in the United States, must be gratifying to him. He has himself been very successful in its use in midwifery cases; and Dr. Protheroe Smith, of London, reports several cases in the *Lancet* in which it has been administered with complete success in labor. Having used sulphuric ether for the last seven months in obstetric practice, Dr. S. is well qualified to judge of the merit of the two articles, and he does not hesitate to award that of superiority to the chloroform. At a meeting of the Westminster Medical Society, the subject was brought before the members—one of whom, having tried the new agent, states that it was preferable in many respects to ether, although it was impossible, he said, that anything could be more efficient than the latter, as it was capable of totally preventing the pain in every operation in which it might be properly applied. Mr. Burnett, Tremont Row, in this city, has the chloroform for sale. See advertisement.

*Theory of Population.*—One of the remarkable books of the age, which deserves far more attention than it appears to receive, is from the pen of an English gentleman, Thomas Doubleday, Esq., on the true laws of population. He dwells with earnestness on points that have heretofore been either overlooked, or wholly neglected, by those wise writers on political economy, who have rested from their labors with apparent self-satisfaction, from an idea that they had solved great problems, on which the organization, if not the stability of society, depends. The objects of this Journal forbid us from tracing the progress made, in former times, in the study of those laws which govern the increase or diminution of human beings, and their relation to the food-producing capabilities of the inhabited portions of the globe. In touching upon a subject so recently examined by one of the most original thinkers of the day, we can only give the essence of the author's views, without making as many extracts as we should, if it could be done without crowding out the legitimate matters of medicine and surgery.

Mr. Doubleday thus introduces himself to philosophers.

First. When the existence of any one species, animal or vegetable, is threatened, there is a stimulus to increase.

Secondly. If any species, animal or vegetable, receive an immoderate supply of aliment, or become plethoric, it does not reproduce itself at all.

Thirdly. If moderate aliment be administered, it re-produces itself, without increasing.

Fourthly. If equal portions of the species be put in these different states, the decrease of one portion will be compensated for by the increase of another, and the numbers of the whole will remain as before.

A generous diet, therefore, on this theory, maintained in a family, tends

to its ultimate extinction, without some countervailing influence to sustain it. The decrease of the baronetage, and the wasting away of the peerage, in England, are adduced with much ingenuity by Mr. Doubleday, to prove his theory; and it is related as a historical fact that the only way in which the oldest families in that kingdom have been kept in existence, is by an occasional marriage into a lower rank. The failure is asserted to be in the prolific character of the males. The same thing is noticeable in this country, in the wealthiest circles. In consequence of a succession of marriages, contracted for the purpose of retaining property in one undisturbed line, the male members, after a while, disappear, and the females inherit from one to the other, till at length those possessions, which several successive generations guarded with a prudent reference to monied alliance, fall to some remote, unacknowledged off-shoot, who had nothing but a sound constitution. The Quakers, in England, a full-fed, comfortably clad sect, who never find it necessary to buffet fortune, and who intermarry among themselves, are diminishing in numbers. How is it in respect to that denomination of excellent people in America?

On the other hand, in new settlements, where a constant effort is demanded to procure the necessities of life, families without children are anomalies. Many children are born, and raised, too. All cities bear evidence of the multiplying tendencies of those who are least of all able to maintain a numerous progeny. Thus, the inmates of by-lanes, old tenements, cellars and garrets, and the laboring classes generally, in both town and country, actually people a nation.

An approach to starvation, or even an apprehension of it, according to Mr. Doubleday, positively produces an increase of population. This may be proved by reference to facts. Six men and ten women, the Bounty mutineers, on Pitcairn's Island, in 1790 had increased to forty-eight in twenty-four years—and, at the last advices, to 180. There is no grain on the island; but fish, bread fruit, and greens, are almost the only food. Ireland, poor, famished, starving Ireland, is notoriously the most prolific country known to modern times. Were the inhabitants bountifully fed, according to Mr. Doubleday's theory, they would begin to deteriorate. An intelligent traveller, very recently from Ireland, says that the vast emigration from that afflicted country has not relieved it at all—because there have been more births than removals. By this newly discovered law, the British government cannot indulge a hope of having the weight of the pauper burden lightened while a perpetual hunger reigns among the people.

Great prosperity, says Mr. Doubleday, and luxury in living, check increase: starvation, destitution, or a state bordering upon either, stimulate and encourage it. Excessively enriching the soil forces plants to run to straw: excessive eating, gluttony, and drunkenness, prevent reproduction of our species. China and Ireland are overstocked, simply because there is never food enough; yet the former buoy up their hope with the comforting proverb, that *there never was a mouth without something to put into it.*

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*Fractures in the Vicinity of Joints.*—When alluding, on a former occasion, to the reception of a volume from the Dublin press, entitled "A Treatise on Fractures in the Vicinity of Joints, and on certain forms of accidental and congenital dislocations, by Robert William Smith, M.D., of

the Royal College of Surgeons, Ireland," &c., justice was not rendered to the author. A subsequent examination has revealed to us the excellencies of this strictly practical work. It is not made up of a tissue of theoretical speculations, but, on the contrary, we are addressed on subjects that neither require speculative suggestions to heighten their interest, nor extra exertions to fix the attention of the reader. Dr. Smith introduces himself modestly to the surgeons of his own country with this observation—"The object which I have had in view in submitting the following pages to the consideration of the profession, has not been to present a systematic treatise upon the extensive subject of fractures and dislocations, but to direct attention to that most difficult portion of it—fractures in the vicinity of joints; and even here I have, for the most part, limited myself to the consideration of those of which I had most experience, the differential diagnosis of which I found to be attended with greatest difficulty, and whose anatomical characters I have had the most frequent opportunities of investigating." Dr. Smith has arranged his observations under ten chapters, constituting an elegant octavo, of 314 pages, accompanied by a large number of beautiful illustrations, almost equalling copper plates in the delicacy of their finish. If there were nothing but these, selected from his own practice, without a word of text, it would be said that his industry in collecting them was an acceptable contribution to the archives of surgery. Our limits forbid a minute detail of the variety of things set before the professional student, in conducting a chapter to its termination, and a mere title of each, is all, therefore, we can afford to lay before them. Chap. I.—On the diagnosis and pathology of fractures of the neck of the femur. II.—On chronic rheumatic arthritis of the hip joint. III.—Fractures of the bones of the fore arm, in the vicinity of the wrist. IV.—Fractures of the humerus, in the vicinity of the shoulder joint. V.—Fractures of the acromial extremity of the clavicle. VI.—Dislocations of the bones of the foot. VII.—Congenital luxations of the wrist joint. VIII.—Congenital dislocations of the shoulder. IX.—Dislocations of the lower jaw. X.—Additional observations on fractures of the radius, dislocations of bones of the foot, and congenital luxations of the wrist.

It must not be inferred, from the apparent scantiness in the titles of these chapters, that there is also a meagreness in the chapters. Every person who gives them a close perusal, will arrive at our own conclusion, it is believed, in acknowledging their obligation to the distinguished author. He has filled a void; and not only that, his cases furnish so much to fall back upon—where and when a doubt comes over the practitioner—that we hope American medical libraries may be enriched by this book of good authority.

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*Dr. Gibson's Introductory.*—Although this lecture, introductory to a course of Surgery in the University of Pennsylvania, has been on the table a week or two, a temporary absence, together with the accumulation of a pyramid of various things for examination, has wholly prevented us from devoting that special attention to it, which the position of the author, a Professor of Surgery in the oldest institution for teaching medical science in America, obviously demands. Narrations of events, of travels, and of the lives of distinguished men in the various walks of life, possess an irresistible charm to a majority of readers, and those public speakers are most

successful in commanding the attention of an audience, who dwell specifically on such narrations. Dr. Gibson has the tact for telling a story well, and his annual introductory lecture is always something new. He pursues a course exclusively his own—and we hope he never will deviate from it; for should he attempt the prosy, monotonous system of some very eminent professors when similar opportunities occur for propagating their peculiar views, if they have any, he would fall far below the culminating point in this kind of literature. There are kinds of vanity quite pardonable in some men, that could not be tolerated in others; and there are styles of writing, too, which are expected, and, indeed, highly relished from certain sources, that would be quite out of place from others.

We are gratified with glimpses, in Dr. Gibson's lecture, at Sir David Brewster, Dr. Carpenter, Le Verrier, Earl Ross, Dr. Forbes, Prof. Faraday, Dr. Pritchard, and half a hundred others, whose names ring over the globe in connection with the sciences which they have successfully cultivated and taught. Dr. Gibson fairly transuses some of his own enthusiasm, when talking over matters about Europe, into the dullest sort of reader. Had he dwelt with far greater minuteness on every descriptive topic brought forward, even to the number of buttons on Prof. Owen's coat, he would have been sure of pleasing one person at least—our humble self. In no other so readily accessible manner, could we have known so much of Dr. Hodgkin or his laborious researches. Who will not watch with peculiar interest the future movements of Dr. Henry Bird, Mr. Dalrymple and Dr. H. Norton Shaw, after the perusal of this discourse?

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*Relation of Chemistry to the Vital Force.*—D. P. Gardner, M.D., Professor of Chemistry and Medical Jurisprudence in the Philadelphia College of Medicine, at the solicitation of the class, has allowed his introductory to the present course on chemistry, to be published. Dr. G. has an open field before him for distinction, since there never was a better opportunity than at the present moment for striking a new chord, and making this too long neglected science in the schools, hold the place that is due to its importance. The lecture is a very good production, and will repay the reader for perusing it—which is more than some pamphlets will do.

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*Worcester District Medical Society.*—A correspondent alludes to the fact that the list of officers of this Society has not been published, for several years past, in the annual pamphlet of the State Medical Society. The reason given in the pamphlet is that there was "no return." He thinks that with the present facilities for communication between Worcester and Boston returns might easily and seasonably be made. The following statements respecting the District Society are copied from his letter.

"The Worcester District Society has held at least one meeting annually since its organization, more than half a century ago; and for some years back it has held three meetings in each year, at which medical papers have been read and discussions held, which were often interesting and profitable to the members. It numbers more than fifty active members—has a valuable library which has been gradually increasing for a long time, and contains many rare books. It has recently been favored with a legacy of six thousand dollars as a permanent fund, the income of which is appro-



priated to the purchase of books, apparatus, &c., and which, if it is judiciously managed, will produce, in another half century, a library of much importance to the Society."

*Inhalation Apparatus.*—Dr. Luther, a dentist, at 485 Washington street, in this city, calls our attention to an apparatus invented by him for the inhalation of ether. In the use of the sponge, as now so generally practised, he says that he has found that the "ether comes in direct contact with the face of the patient, producing irritation and soreness of the face and lips. The ether is constantly dripping from the sponge upon the patients, which is unpleasant to them, to say nothing of the loss of the article itself. In exhaling through the sponge, a large proportion of the vapor is driven from it and lost, causing the atmosphere of the whole room to be highly charged with it. When a second application is necessary in dental operations, the blood from the mouth stains the sponge, thereby preventing the operation from being done in that neat manner which is always desirable." His inhaler, he says, is free from all these objections, and reference is made to several eminent physicians of this city, who regard it as superior to any other instrument. *It is intended for chloroform or ether.*

*Etherization by Chloroform.* TO THE EDITOR.—Dear Sir,—Your Journal was the first to announce the discovery of ether, and I observe that it has already recognized the improvement in etherization. "*Chloroform*" is, as I learn, to all intents and purposes, *pure chloric ether*. Chloric ether of the shops, is *chloroform* dissolved in alcohol, deprived of which it is fit for use. To prepare chloroform, shake water and chloric ether together in a glass vessel; the water combines with the alcohol, and chloroform falls to the bottom. It is, therefore, heavier than water, while ether is lighter. The following are its advantages:—Its taste is pleasant; it excites less cough; its odor does not infect the house or the individual; and a small quantity, averaging 100 drops, suffices to produce insensibility.

Analogy will show that the effects of chloroform should be those of ether; and experience abroad and here has confirmed this view. In the cases I have seen, the narcotism has been a little less complete and durable; but when we shall have an abundance of the pure chloric ether it is quite probable its effects will prove to be, in proportion to its strength, identical with those of common sulphuric ether. Though chloric ether was included in the original specification of the invention, there is now an opportunity for those of our Philadelphia friends who do not like *ether* to try *chloric ether*. The way is open, too, for new *inhalers*. The fluid stimulates the skin and is said to vesicate.

H. I. B.

TO CORRESPONDENTS.—Dr. Tabor's Historical Sketch of Tobacco, Dr. Lawrence's Report from Children's Infirmary, and Dr. Holt's account of Dysentery, have been received.

*Report of Deaths in Boston*—for the week ending Jan. 1st, 57.—Males, 32—females, 25.—Stillborn, 6. Of consumption, 11—dropsy, 1—dropsy on the brain, 1—typhus fever, 8—lung fever, 5—scarlet fever, 1—inflammation of the lungs, 2—disease of the lungs, 1—disease of the heart, 2—marasmus, 4—old age, 1—diarrhoea, 1—dysentery, 1—inflammation of the bowels, 3—child-bed, 1—croup, 5—teething, 2—convulsions, 3—infantile, 2—smallpox, 1—apoplexy, 1.

Under 5 years, 23—between 5 and 20 years, 3—between 20 and 40 years, 17—between 40 and 60 years, 12—over 60 years, 2.

**Treatment of Burns.**—M. Jobert, of the Hopital St. Louis, has tried the prolonged application of ice to severe burns, and this with the most happy results. Two cases occurring recently in his practice are briefly recorded in *L'Union Medicale*. A man was brought into the hospital with a deep and extensive burn of the right hand—a burn so bad, that the two last phalanges of the index and middle fingers sloughed and required amputation. The other fingers were much less deeply injured, but yet very severely; the calf also presented a large scar. M. Jobert applied lint, spread with cerate, immediately to the wounds, and over this placed some bladders filled with ice, which were kept constantly applied, the ice being frequently renewed. No febrile reaction took place; the sloughs separated, and cicatrization went on rapidly, without the formation of bands to contract. The other case was still more severe, and occurred in a young man employed in a match factory, who was burned by the deflagration of a mass of phosphorus which he was preparing. The entire face was burned; the globe of the right eye, including the cornea itself, was covered by a burnt scab, which, on separating, has left a large ulcerating surface, suppurating copiously; the forehead, nose, and cheeks, were also implicated in the burn. The use of the ice, in the preceding manner, has prevented the development of any of those inflammatory accidents which are so common in burns so extensive; febrile reaction has been scarcely sensible; the pulse hardly increased in frequency; and the pain very moderate. There has been, however, a little delirium, but connected, according to M. Jobert, not with the general state of the system, but with the local inflammatory action going on in the eye. Cicatrization has proceeded quickly, and no cellulose-cutaneous bands have formed; the new skin formed is smooth and even, and the production of new tissues has taken place with perfect regularity. —*London Lancet*.

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**Mortality in England.**—The quarterly return of the registrar-general of the health and mortality in 117 districts of England has just been published, from which it appears, that the deaths registered in the past quarter were 49,479—a number less by 1948 than were registered in the corresponding quarter of 1846, but 7007 more than the corrected average of the September quarters of 1838-46. It is stated that upon the whole there is a slight improvement in the health of the country. In London there has been no sign of improvement; the number of deaths registered in the September quarters of 1845 were 10,987, in 1846 they amounted to 12,601, and in 1847 had increased to 13,187. The mortality remains high in Birmingham, Dudley, Wolverhampton, and in many of the towns of Lancashire; in Leeds, Hull, York, and Sunderland. The returns from the other towns of the kingdom present nothing unusual, the mortality being much the same as in previous years.—*Ibid*.

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**Chloroform.**—Yesterday, Mr. Liston removed two encysted tumors from the head of a lady, who was rendered insensible by the inspiration of chloroform. A drachm of the chloroform was put into the common inhaler, and ten or twelve inspirations were sufficient to produce complete insensibility, when the tumors were removed.—*Ibid*.